

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F21-R-46

Name: Pasture 8 (DU) Pond

County: Perkins

Legal description: Sec 23, T 20N, R 16E

Location from nearest town: 1 mile west, 17½ miles south, and 3½ miles west of Lemmon, SD.

Dates of present survey: June 4 & August 19, 2013

Date last surveyed: July 11, 2012

Management classification: Warmwater semi-permanent

Primary Species: (game and forage)

1. Largemouth Bass

2. _____

Secondary and other species:

1. _____

2. _____

PHYSICAL CHARACTERISTICS

Surface Area: 17 acres

Maximum depth: Appx. 10 feet

Lake elevation at survey (from known benchmark): -3 feet

Watershed: NA

Mean depth: NA

Ownership of lake and adjacent lakeshore property:

The Pasture 8 (DU) Pond is located on the Grand River National Grasslands. The pond is owned by the United States Forest Service (USFS).

Fishing Access

The Pasture 8 (DU) Pond can be accessed by driving a narrow gravel road, and then travel down a United States Forest Service (USFS) "two track" trail approximately ¾ of a mile. The two-track trail could be difficult to drive after precipitation events, and there are two places where the two-track is washing out which could damage vehicles. The shoreline of the pond is fairly open and accessible. Dense submergent aquatic vegetation during mid to late summer makes shoreline angling difficult. Wading into or past the submerged vegetation or using a small boat to access deeper water would provide better angling opportunity.

Observations of Water Quality and Aquatic Vegetation

There was no obvious water quality issues observed at the time of the survey, however, water chemistry analysis was not performed during the survey. Some emergent vegetation, such as cattails, exist and dense areas of submergent aquatic vegetation occur around at the pond.

Observations on conditions of structures (i.e. spillway, boat ramps and docks, roads, etc)

There were no obvious problems with the dam observed at the time of the survey. There are no boat ramps or docks at this pond. The "two track" road was rough and washing out in a couple of places at the time of the survey.

MANAGEMENT OBJECTIVES

Objective 1. Maintain a moderate to high density of largemouth bass with PSD range between 20 and 40.

BIOLOGICAL DATA

Sampling Effort and Catch

Trap Net Survey

Pasture 8 (DU) Pond was surveyed using two trap nets set overnight. Trap nets were modified fyke nets consisting of a 1.3 X 1.5 m frame, 19.1 mm (0.75 in) mesh and a 1.2 X 23 m (3.9 X 75.5 ft) lead. A total of two Largemouth Bass were collected in the trap nets. One fish was age-4 and 371 mm (14.6 in) in length with a *Wr* of 118.7. The other Largemouth Bass was slightly over stock length of 200 mm (8 in).

Seine Net Survey

Three seine hauls were completed on the Pasture 8 (DU) pond. A bag seine that is 16 m long with 6 mm bar mesh was used to complete the seine hauls. During three quarter arc seine hauls a total of three Largemouth Bass were collected and all were in one seine haul on the east side of the pond. The Largemouth Bass collected were between 200 and 230 mm and were age-2.

Angling Survey

An angling survey was completed on June 4, 2013 and an additional sample was collected on August 19, 2013. The Largemouth Bass were not aggressively feeding during the June angling survey likely due to the water temperatures still being relatively cool (56F). A total of five Largemouth Bass were collected during two angler hours (2.5 fish/angler hour). This was substantially down from the 10.9 fish/angler hour sample in 2012.

During 2012, approximately 1,500 Largemouth Bass were angled from this pond and stocked into other ponds. The local Conservation Officer had reported that there was a fish kill in this pond during the 2012 winter. It was apparent in the early survey that there was not a total die-off of fish in the pond. However, SDGFP personnel were unsure whether the low catch in June was the result of the fish transfers and the partial winter kill or that the cool water temperature was making the Largemouth Bass harder to sample with this method. Personnel returned to the lake to discover that there was still a high density of Largemouth Bass as 36 were collected in two angler hours (16 fish/angler hour). At this time water levels appeared lower than 2012 when there was a partial winter kill. Game, Fish, and Parks personnel decided to transfer an additional 200 LMB in September in case there was a total loss of fish in the winter of 2013. There had been some fall precipitation events in 2013, and it may have raised the water level enough for the fish to survive the winter of 2013.

In 2012, there were two year classes present in the sample which included age-3 Largemouth Bass, which were likely from the original stocking in 2009, and age-1 fish which were likely from natural recruitment in the pond. The two year classes present in the 2012 survey were the same year classes collected during the 2013 survey and were now age-2 (N=42) and age-4 (N=2). Only age-2 fish (N=38) were collected during angling.

The mean length and weight of the age-2 Largemouth Bass collected by angling in 2013 was 231.7 mm and 178.9 g, respectively. The mean length of that year class (as age-1) in 2012 was 176.4 mm. During the angling surveys, in 2013 100% of the sample was over stock length (200 mm; 8 in) compared to only 22.5% over stock length in 2012.

Condition was good for Largemouth Bass greater than or equal to stock length ($W_{\geq S}$) at 109.1.

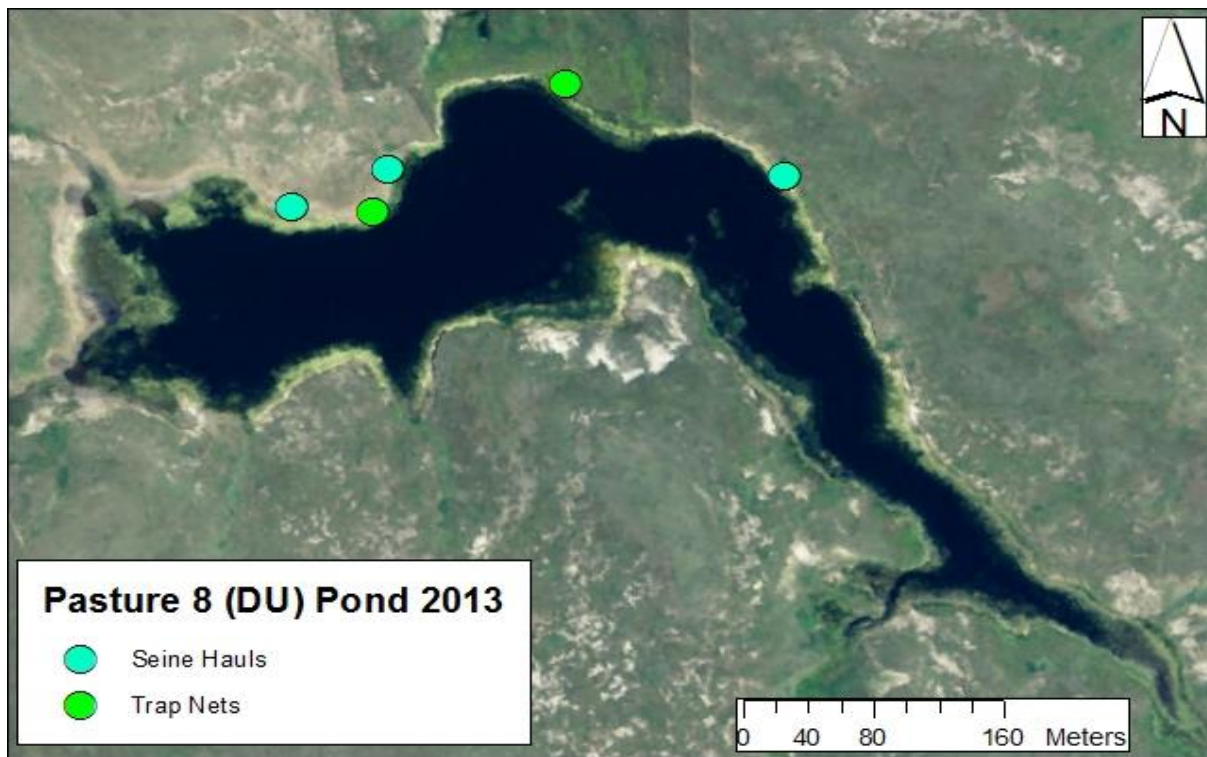


Figure 1. Map showing trap and seine net locations on Pasture 8 (DU) Pond in 2013.

MANAGEMENT RECOMMENDATIONS

1. Continue to monitor the Largemouth Bass population in the Pasture 8 (DU) Pond and use this pond as a source for stocking other ponds, and as a good angling opportunity in this area.
2. Evaluate, as needed, when drought and winter kill may negatively affect this fishery.
3. If the Largemouth Bass are lost (during drought or winter kill) restock the pond as water levels allow.

APPENDIX

Appendix A. Recent stockings in Pasture 8 (DU) Pond.

Year	Species	Size	# Stocked
1995	Largemouth Bass	Fingerling	1,000
1996	Largemouth Bass	Fingerling	1,000
1997	Largemouth Bass	Fingerling	1,000
1999	Largemouth Bass	Fingerling	500
2009	Largemouth Bass	Fingerling	1,000